DCR-HC17E/HC19E/HC21/HC21E/HC22E/ HC32/HC32E/HC33/HC33E

RMT-830/831

SONY

LEVEL 2

SERVICE MANUAL

Ver 1.2 2006.03

DCR-HC21/HC32
US Model
Canadian Model
Korea Model

DCR-HC17E/HC19E/HC22E/HC32E
AEP Model
East European Model
North European Model

DCR-HC19E/HC22E/HC32E
UK Model

DCR-HC21/HC21E/HC32/HC32E
E Model

DCR-HC21E/HC32E
Australian Model
Hong Kong Model

DCR-HC21/HC33
Brazilian Model

DCR-HC21E/HC33E
Chinese Model

DCR-HC32/HC32E
Tourist Model

SUPPLEMENT-2

File this supplement with the service manual
(PV05-095)

• Addition of LCD Type (AUO TYPE: HC21/HC32)

- Along with SONY TYPE, AUO TYPE is added at type of LCD (DCR-HC21/HC32 only).
- When the machine needs to be repaired, please refer to page 2 to discriminate the type of LCD.

DCR-HC17E/HC19E/HC21/HC21E/HC22E/HC32/HC32E/HC33/HC33E
9-876-782-82
Sony EMCS Co.
2006C0500-1
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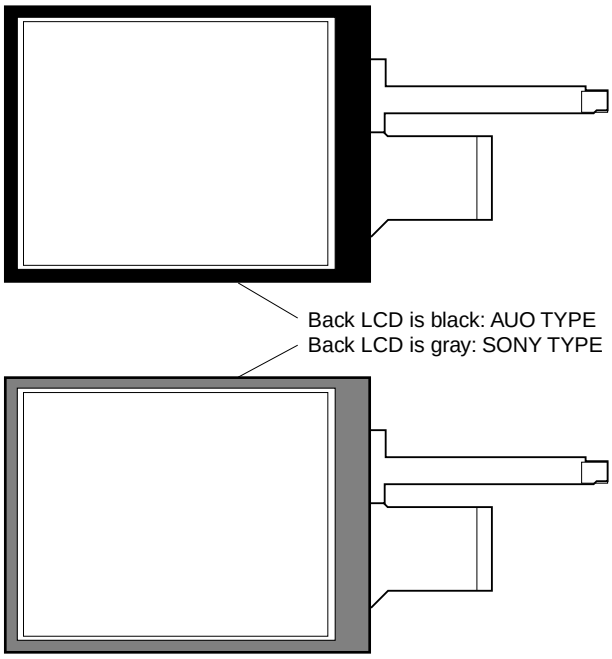
Published by DI Technical Support Department

1. SERVICE NOTE

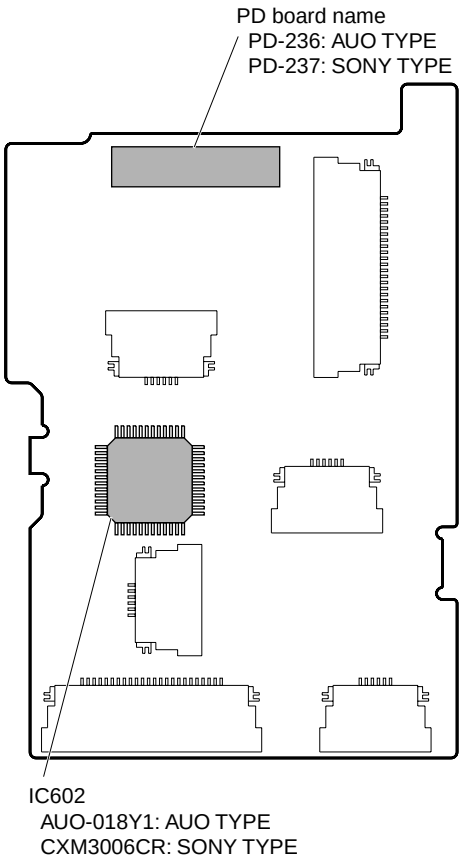
1-5. LCD TYPE CHECK (DCR-HC21/HC32)

Note: About PD-236/237 board and TP assy, discriminate LCD type on the machine, and replace the same type.

• Discrimination method by TP assy



• Discrimination method by PD board

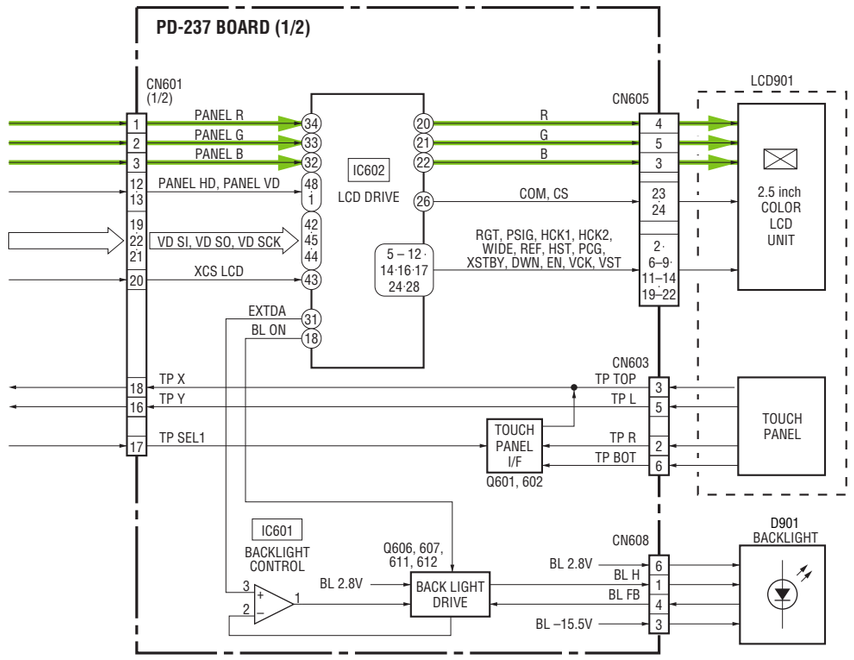


3. BLOCK DIAGRAMS

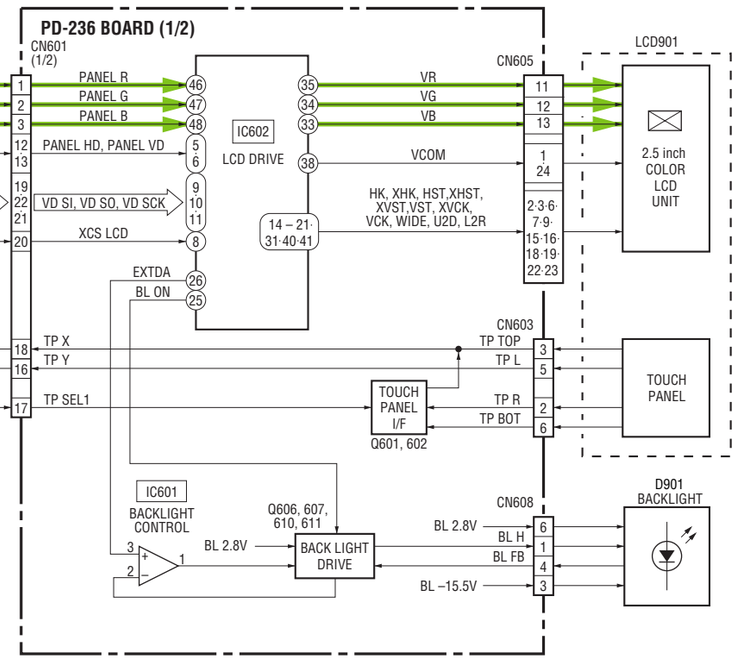
3-1-3. OVERALL BLOCK DIAGRAM (3/5) (NON MS model)
(Service manual page 3-6)

3-2-4. OVERALL BLOCK DIAGRAM (4/6) (MS model)
(Service manual page 3-24)

SONY TYPE



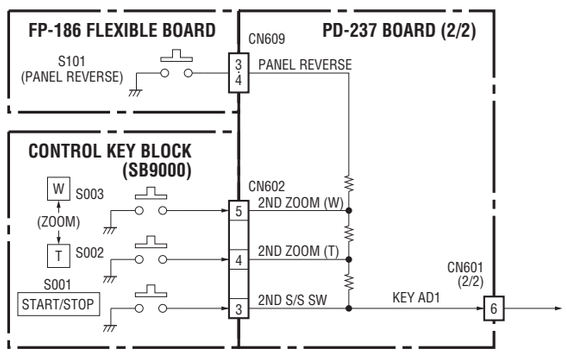
AUO TYPE



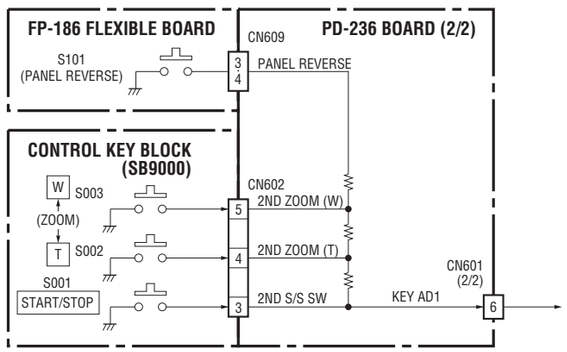
3-1-5. OVERALL BLOCK DIAGRAM (5/5) (NON MS model)
(Service manual page 3-9)

3-2-6. OVERALL BLOCK DIAGRAM (6/6) (MS model)
(Service manual page 3-27)

SONY TYPE



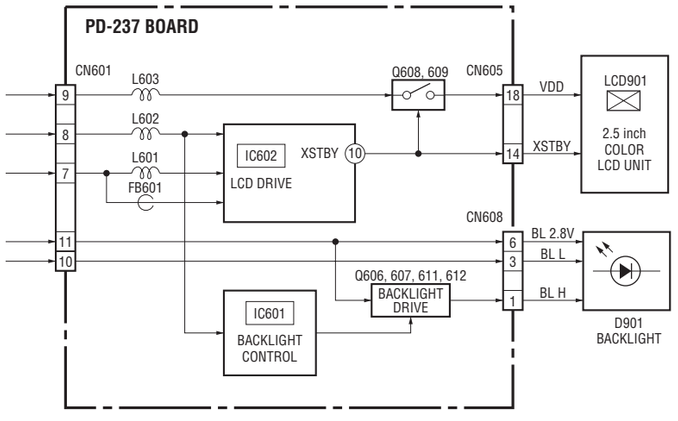
AUO TYPE



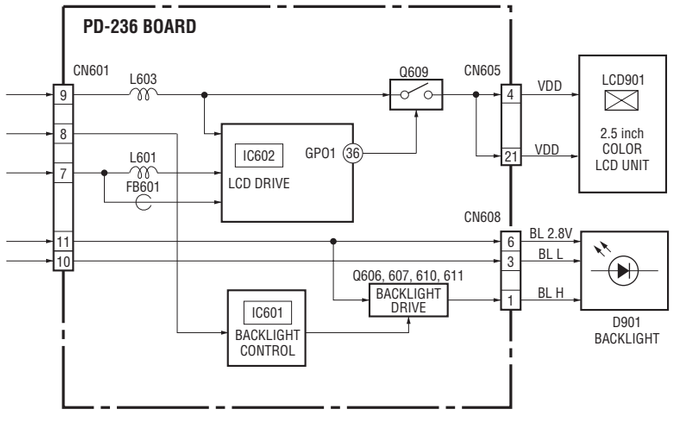
3-1-8. POWER BLOCK DIAGRAM (3/3) (NON MS model)
(Service manual page 3-16)

3-2-9. POWER BLOCK DIAGRAM (3/3) (MS model)
(Service manual page 3-33)

SONY TYPE



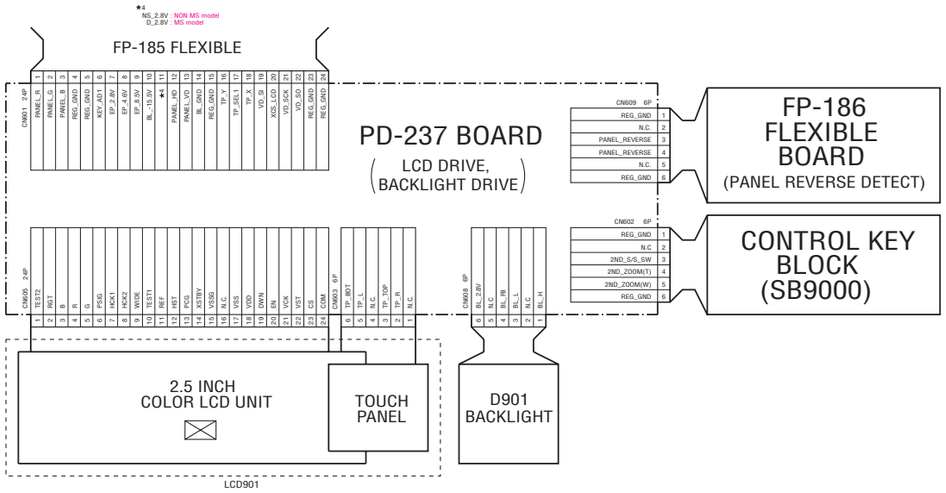
AUO TYPE



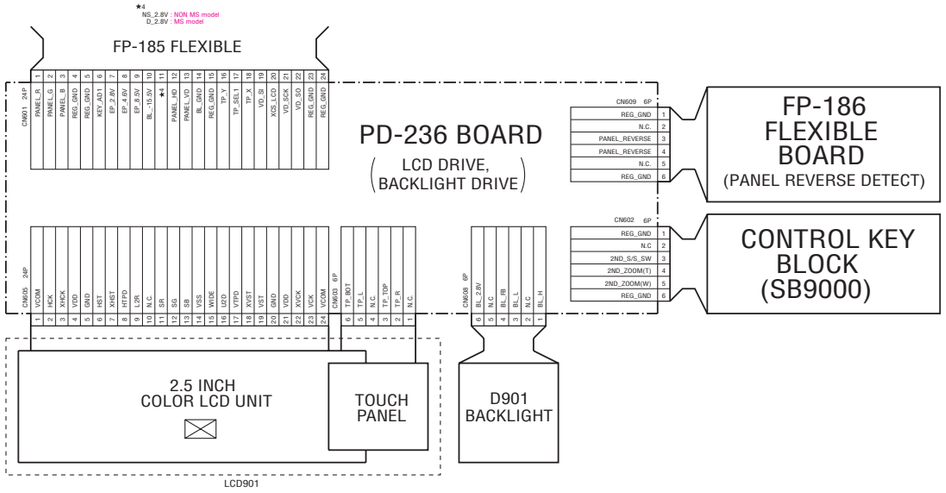
4-1. FRAME SCHEMATIC DIAGRAM

(Service manual page 4-2, Location L-15 to P-23)

SONY TYPE



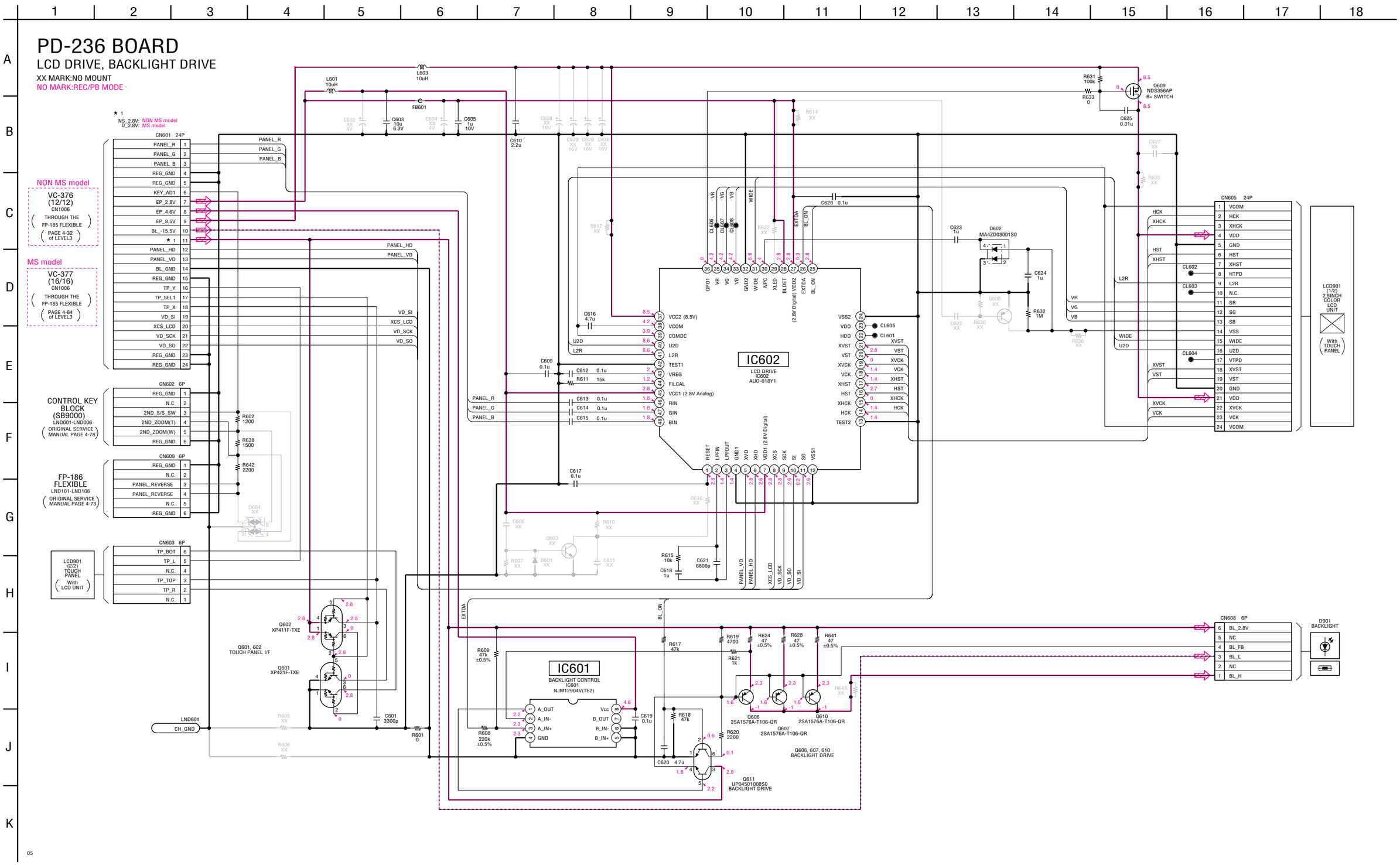
AUO TYPE



4-2. SCHEMATIC DIAGRAMS

For Schematic Diagram

• Refer to page 7 for printed wiring board.


PD-236 BOARD
LCD DRIVE, BACKLIGHT DRIVE
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
NON MS model
VC-376 (12/12) CN1006 THROUGH THE FP-185 FLEXIBLE PAGE 4-32 of LEVEL3
MS model
VC-377 (16/16) CN1006 THROUGH THE FP-185 FLEXIBLE PAGE 4-64 of LEVEL3
CONTROL KEY BLOCK (SB9000) LND001-LND006 ORIGINAL SERVICE MANUAL PAGE 4-78
FP-186 FLEXIBLE LND101-LND106 ORIGINAL SERVICE MANUAL PAGE 4-73
LCD901 (2/2) TOUCH PANEL With LCD UNIT
LND601
CH_GND
Q601, 602 TOUCH PANEL I/F
IC602
LCD DRIVE IC602 AUO-018Y1
IC601
BACKLIGHT CONTROL IC601 NJM12904V(TE2)
Q606, 607, 610 BACKLIGHT DRIVE
Q611 UP04501008S0 BACKLIGHT DRIVE
LCD901 (1/2) 2.5INCH COLOR LCD UNIT With TOUCH PANEL
D901 BACKLIGHT

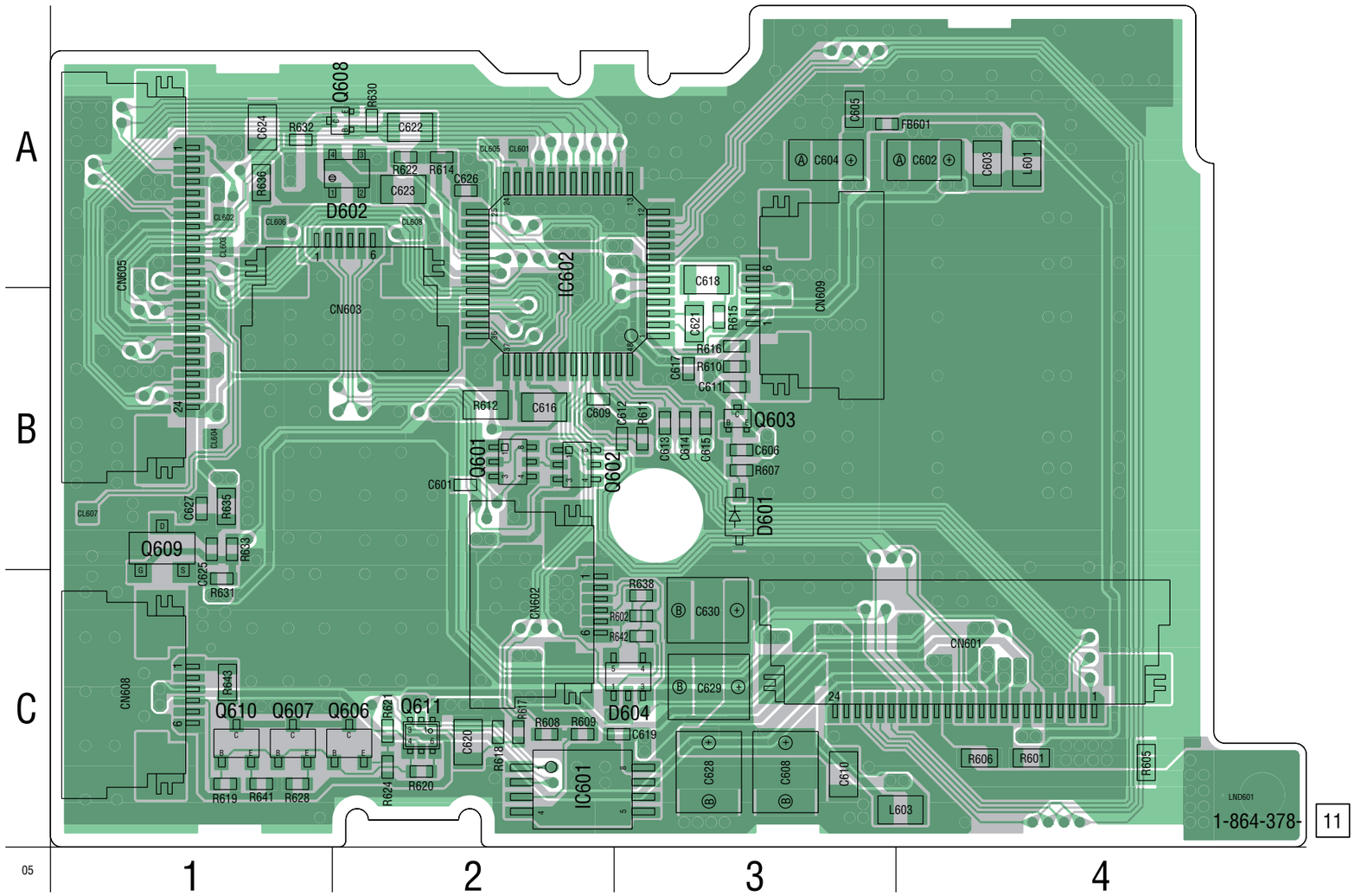
4-3. PRINTED WIRING BOARDS

PD-236

Note for Printed Wiring Board (Original service manual page 4-79).

: Uses unleaded solder.

PD-236 BOARD



4-5. MOUNTED PARTS LOCATION

no mark : side A
* mark : side B

PD-236 BOARD

C601 B-2
C603 A-4
C605 A-3
C609 B-2
C610 C-3
C612 B-3
C613 B-3
C614 B-3
C615 B-3
C616 B-2
C617 B-3
C618 A-3
C619 C-3
C620 C-2
C621 B-3
C623 A-2
C624 A-1
C625 B-1
C626 A-2

CN601 C-4
CN602 C-2
CN603 B-2
CN605 A-1
CN608 C-1
CN609 B-3

D602 A-2

FB601 A-3

IC601 C-2
IC602 A-2

L601 A-4
L603 C-4

Q601 B-2
Q602 B-2
Q606 C-2
Q607 C-1
Q609 B-1
Q610 C-1
Q611 C-2

R601 C-4
R602 C-3
R608 C-2
R609 C-2
R611 B-3
R615 B-3
R617 C-2
R618 C-2
R619 C-1
R620 C-2
R621 C-2
R624 C-2
R628 C-1
R631 C-1
R632 A-1
R633 B-1
R638 C-3
R641 C-1
R642 C-3

5. REPAIR PARTS LIST

☞ **: Points added portion.**

5-1. EXPLODED VIEWS

5-1-4. LCD BLOCK

Page	FORMER			NEW		
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
5-5	167	A-1081-848-A	PD-237 BOARD, COMPLETE	167	A-1081-848-A	PD-237 BOARD, COMPLETE (SONY TYPE) (Note)
	—	————	————————	167	A-1081-847-A	PD-236 BOARD, COMPLETE (AUO TYPE) (Note)
	LCD901	A-1090-680-A	(TP) BLOCK ASSY (2.5STMG) (HC21/HC32/HC32E/HC33/HC33E)	LCD901	A-1090-680-A	(TP) BLOCK ASSY (2.5STMG) (HC21/HC32/HC32E/HC33/HC33E) (SONY TYPE) (Note)
	—	————	————————	LCD901	A-1121-498-A	(TP) BLOCK ASSY (2.5AUFU) (HC21/HC32) (AUO TYPE) (Note)

Note: When the machine needs to be repaired, please refer to page 2 discriminate the type of LCD.

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description			
	A-1081-847-A	PD-236 BOARD, COMPLETE (AUO TYPE) **********			
		< CAPACITOR >			
C601	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C603	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C605	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C609	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C610	1-125-889-91	CERAMIC CHIP	2.2uF	10%	10V
C612	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C613	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C614	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C615	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C616	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C617	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C618	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C619	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C620	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C621	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C623	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C624	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C625	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C626	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN601	1-818-071-51	CONNECTOR, FFC/FPC (ZIF) 24P			
* CN602	1-818-069-51	CONNECTOR, FFC/FPC (ZIF) 6P			
* CN603	1-691-370-51	CONNECTOR, FFC/FPC 6P			
CN605	1-818-071-51	CONNECTOR, FFC/FPC (ZIF) 24P			
* CN608	1-818-069-51	CONNECTOR, FFC/FPC (ZIF) 6P			
* CN609	1-818-069-51	CONNECTOR, FFC/FPC (ZIF) 6P			
		< DIODE >			
D602	8-719-074-08	DIODE MA4ZD03001S0			
		< FERRITE BEAD >			
FB601	1-400-461-21	FERRITE, EMI (SMD) (1005)			
		< IC >			
IC601	8-759-693-13	IC NJM12904V (TE2)			
IC602	6-707-045-01	IC AUO-018Y1-TBM-E			
		< COIL >			
L601	1-400-588-11	INDUCTOR, LAMINATE CHIP 10uH			
L603	1-400-588-11	INDUCTOR, LAMINATE CHIP 10uH			
		< TRANSISTOR >			
Q601	8-729-427-67	TRANSISTOR	XP421F-TXE		
Q602	8-729-427-37	TRANSISTOR	XP411F-TXE		
Q606	8-729-026-53	TRANSISTOR	2SA1576A-T106-QR		
Q607	8-729-026-53	TRANSISTOR	2SA1576A-T106-QR		
Q609	8-729-041-23	TRANSISTOR	NDS356AP		
Q610	8-729-026-53	TRANSISTOR	2SA1576A-T106-QR		
Q611	8-729-054-50	TRANSISTOR	UP04501008S0		

Ref. No.	Part No.	Description			
		< RESISTOR >			
R601	1-216-864-11	SHORT CHIP	0		
R602	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R608	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R609	1-208-927-11	METAL CHIP	47K	0.5%	1/16W
R611	1-218-967-11	RES-CHIP	15K	5%	1/16W
R615	1-218-965-11	RES-CHIP	10K	5%	1/16W
R617	1-218-973-11	RES-CHIP	47K	5%	1/16W
R618	1-218-973-11	RES-CHIP	47K	5%	1/16W
R619	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R620	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R621	1-218-953-11	RES-CHIP	1K	5%	1/16W
R624	1-208-855-81	METAL CHIP	47	0.5%	1/16W
R628	1-208-855-81	METAL CHIP	47	0.5%	1/16W
R631	1-218-977-11	RES-CHIP	100K	5%	1/16W
R632	1-218-989-11	RES-CHIP	1M	5%	1/16W
R633	1-218-990-81	SHORT CHIP	0		
R638	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R641	1-208-855-81	METAL CHIP	47	0.5%	1/16W
R642	1-218-957-11	RES-CHIP	2.2K	5%	1/16W